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denver apple pi Seed

Newsletter for Denver's Apple users

Volume 6 Number 11 NOVEMBER 1984

A NIGHT WITH WOZ

by André van Meulebrouck

For those of you who missed the Woz meeting, you missed a real experience! The Woz is to Apple owners what John Lennon and the Beatles were to the sixties!

It would have delighted everyone to have the Woz simply come and be the Woz (as the columnist in the Rocky Mountain News wrote), but not only did Mr. Wozniak come and speak to us, he also brought a friend from the Home Brew Computer Club, Randy Wigginton, author of MacWrite, and member of the Macintosh design team!

Someone from the club took home video footage of the meeting, and hopefully will show it at a general meeting if it turned out alright.

Mr. Wozniak's plane was delayed due to inclement weather, but almost everyone waited. Only a very few people left, if any. A panel discussion was used to fill up time until Mr. Wozniak arrived. Everyone was surprisingly patient and willing to go along with things in anticipation for Mr. Wozniak.

Upon arriving, Mr. Wozniak signed a box of wooden apples to hand out as door prizes. The average for giving out these apples may have been as bad as 10%! It seemed that most of the members called seemed to have missed the meeting?!? Either that, or we have alot of out-of-town members that could not make the meeting. Mr. Wozniak's friend, Randy, told the Woz to quit making up names!

After the apples were all handed out, the VP presented Mr. Wozniak with a card for a lifetime membership to Denver Apple Pi, and a green shirt like the officers wear. So, we can all be proud to have Mr. Wozniak himself as a club member! After the introductions from the president, and a representative of the school system, Mr. Wozniak began his talk. Bunker auditorium became very quiet as people became engrossed and inspired by the Apple story. Mr. Wozniak is a very dynamic and spellbinding speaker. Everyone was enthralled, and the fact that the inventor of the Apple computer himself was speaking to us was still sinking in.

The Woz started his talk with how he got started in computers. He related details about the early hobby machines of that time, the computers he thought alot of, and, how primitive some of the first computers he made were, but how much fascination they held for

Next, Mr. Wozniak talked about his job at HP, which was very interesting. Also, he mentioned that he had some type of fondness for Colorado, and had attended the University of Colorado at Boulder for a semester or so. Woz's descriptions of some of the television jokes he pulled on dormitory students were outrageous! In school, Mr. Wozniak says he often found topics of more interest when doing his homework, and details about a subject that he thought were of more consequence and importance, so he studied what he thought was important and did not worry about his grades.

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MEMBERSHIP INFORMATION
$10 APPLICATION FEE AND $18 PER YEAR DUES

APPLE PI is an Apple Computer Users Group - not affiliated with Apple Computer, Inc. - that provides many member benefits, some of which are:

MONTHLY MEETINGS-

On the first Thursday of each month at 7:00 p.m. APPLE PI holds its general meeting at the Greene Center, Colorado School of Mines Campus, Golden, Colorado. This meeting is a combination of an informational meeting, new product announcements, and a short business meeting. The members are given an opportunity to buy computer supplies a little above cost. Software products are given away as door prizes.

On the Sunday following the general meeting there is an informal meet which is usually held at the home of a member, the location of which is announced in the newsletter and at the general meeting. This meeting is from 10:00 a.m. until 3:00 p.m. and provides a more informal environment to seek or give advice to fellow members and get copies of programs from the APPLE PI Library. Both of these meetings are open to the general public but only members have access to products that are sold.

PROGRAM LIBRARY-

APPLE PI currently has a library of 8,000 programs. All current disks are in 16 sector (3.3, Pascal, CP/M) format and are available to any member. APPLE PI Members can obtain copies from the library:

1) By coming to the monthly informal meeting (swap meet);
2) By written request to the club librarian (at any meeting or by mail);
3) By electronic mail on APPLE PI's bulletin board system:

When requesting copies, please include the following information:

a) Your Name, Address, and Phone number;
b) Disk Category and Volume Number;
c) Blank Diskette(s) or request to utilize a new disk (member will be charged $2.50 for the new disk);
d) Copy fee ($1.00 per diskette side unless you donate a program you have written at the same time and fill out a Progam Submission Form). Only complete sides of disks will be copied.
e) Instructions on how the disks are to be returned, i.e., at the next meeting, by mail, etc. (IF RETURN IS TO BE BY MAIL PLEASE BE SURE TO INCLUDE A STAMPED, SELF-ADDRESSED FLOPPY DISK MAILER, AND $2.50 TO COVER SHIPPING COSTS).

DISK OF THE MONTH-

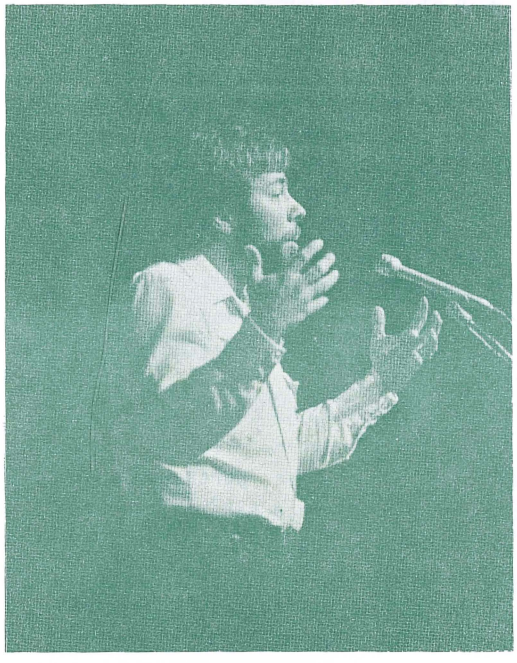
Each month a collection of some of the best programs donated to APPLE PI during the preceding month are made available. The DOM can be purchased at any group meeting or by mail.

DUES-

Current membership dues are $18.00 per year, with a one-time application fee of $10.00. Checks should be made payable to APPLE PI.

WOZ CONT.

The discussion went to the Home Brew Computer Club, which the Apple II is a brain child of. Most of the members of the club were, for the most part, broke! Getting parts to build things was always a challenge. Often, companies were asked for their rejected electrical components. The idea of software for personal computers was so germinal at this stage, that current ideas about piracy were not present (at least, not like they are today). An emphasis on sharing the latest algorithms and ways of doing things prevailed. In fact, if you borrowed any of the club's programs, you were supposed to bring back two copies when you returned them!



Mr. Wozniak commented that there is a shortage of //e's. It was thought that the //c would take prominence over the //e, but it didn't.

Randy, the member of the Mac design team, and author of MacWrite talked very briefly after Woz. He said the extra memory for the Mac is "here". The fat Mac is not going to hurt the Mac, and the hoped for color in the fat Mac would have caused the price to go up alot, so the fat Mac won't have color.

Towards the end of the meeting, the Woz and his friend fielded questions from the audience. One was about the //c's problem with telecommunications at 1200 baud. Mr. Wozniak informed us the problem was corrected and the newer versions would not have the problem, which he said was a timing problem.

Mr. Wozniak explained that the reason for the memory layout of graphic memory in the Apple II is due to chips. The Apple was designed to impress the members of the Home Brew Computer Club, and not to be marketable per se. A maxim of sparseness of chips (as few as possible) was considered "good" and alot of chips were thought of as "bad". Realistate on PC boards was, and still is, very important to Mr. Wozniak.

Another question was an inquiry as to what the Woz thought of the new 16 bit processor (65SC802). Mr. Wozniak's comments about it were favorable, but he did not indicate that it would be replacing the 6502 in the immediate future in the //e.

After the talks by the Woz and his friend, they autographed everything from a disk drive to Apple Reference Manuals, to Seeds, to club cards.

The fact that the Woz was here, and talked to us in person is still sinking in for alot of people (this member included)!

denver apple pi IT PAYS BELONG !!

At the last Core Meeting someone brought a brochure from a company called "The Public Domain Software Copying Co.". These people were at the computer show at the Mart. What does the Public Domain Software Copying Co. do? Well they sell public domain software (what else). They will sell you a disk full of public domain programs for only $10.00. The brochure boasts of over 50 disks of software. WOW such a deal!!!

Apple Pi has thousands of programs on hundreds of disks and you can get copies for only a buck a disk! The dollar you pay helps cover the cost of maintaining one of the countries biggest public domain libraries, your Apple Pi library. So why spend $10.00? We have almost all the programs that they advertise and bunches they only wish they could offer.

It pays to belong to Apple Pi - tell a friend!!

President's Report

Steve Wozniak's, co-founder of Apple Computers, talk at our October meeting seemed to be worth the wait observing the large number of people (approx 850) who patiently waited. Unfortunately that Thursday was a cloudy, rainy day in Denver and "The Woz's" plane was delayed 1 1/2 hours. Steve told me after the meeting that the Denver Apple Pi group was the most receptive/enthusiastic users group he has even spoken before. He said the questions ask both while he was on stage and afterwards indicated we had a lot of genuine talent within the club. To those lucky people who received the wooden apples autographed by "The WOZ," I hope you enjoy and treasure tese special door prizes. I do not know who received them, but Steve told me later that some of the apples had additional signatures on them. He claimed names like Mickey Mouse, Steve Jobs, etc. were one some of the apples he signed.

My personal thanks to all the officers and their wives/girlfriends who helped out at the October meeting. Without the assistance of all these fine officers, the meeting would never have been the success that occurred. Finally, a special note of thanks to Peggy Smith, Debbie Dean, Rich Waite, and to my wife, Bernice, for all their assistance.

November's meeting will be a demonstration of some of the latest software available and the latest and most popular computer games. It is planned to have "our best players" demonstrate these games for the membership. If you have a favorite, currently popular game which you feel you know and consider yourself an expert, call me, you might just get a chance to show your stuff. This includes the younger ones in the families or those young at heart.

December will be our annual Christmas Party with snacks and beverages. There will be multiple door prizes and we will be making disk copies at reduced rates from the software library. For those of you who are new to the club, we do not have a CORE meet in December, but instead use our general meeting to make library copies and meet informally. Plan to come out in December and meet others in the club, you may be surprised how much we ALL have in common.

Bob Hein, President

Review

I've just purchased one of the neatest programs I've seen for an Apple with a graphics printer. You may have read that its WOZ's favorite, and you'll see why when you use ... PRINT SHOP.

With it, you can produce letterheads, full-page signs, looooooong banners, or even greeting cards. You're afforded 7 different fonts, and 60 different images. A well-ordered set of menus make it easy to use, in fact, I produced a letterhead without reading the manual. Perhaps the slickest feature is the production of greeting cards. You can choose the front layout, then the inside, separately. And its smart enough to print all of it in such a way that, when you tear the paper and fold it properly, you have a card that looks like one you'd get from a store.

Finally, it has a graphic editor with which you can create your own images. It's a great package, works with one of many printers, with many interfaces. For $50, (less through the mails) its a good buy.

While I'm doing product reviews, I can try spitting-out one more. In an attempt to exceed my credit limits I have purchased Apple's RGB Color Monitor and interface card. I haven't had a lot of RGB experience, but as far as I can tell, it's a damn fine piece of video hardware.

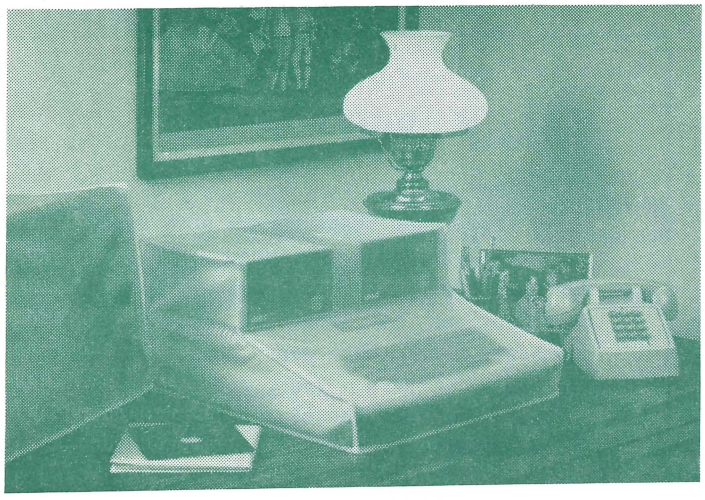
The 80 col display with applications like word processing is just as crisp as my old Monitor III. By the way, you can switch it between amber and green for monochrome applications. The color rendition on color-full games and utilities is great. I bought it from the fine folks at Adams Computers, Wadsworth and Hampden.

Gary Trapp

Core Meeting

KKBNA INC.

4251 Kipling



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Accounts Receivable		0.00
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Total Assets		11089.20
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Sales Tax Accrued		194.15
Accounts Payable		0.00
Unposted Income		471.23
Total Liabilities		665.38
NET WORTH		10423.82

THANK YOU...

When you stop in to an Apple Pi member store tell them that you are with Apple Pi and thank them for the support they give. Our store members make valuable contributions to Apple Pi from special discounts to the door prizes at the meetings. When you need hardware, software or computer supplies remember our store members.

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JOHNNY APPLESEED

Dear John,

I just traded in my + for a //c. I kept my printer thinking that I could use it with my new computer, but I now know that I have a parallel printer, and I cannot connect it to my //c's serial port. Can you help?

Lost in Interface Land

Dear Lost,

Your question is a common one. The //c only has serial ports, and Apple suggests that you use one of their printers with the //c. Fortunately, many third party hardware developers have come up with many solutions.

For you, the best solution would probably be to purchase a product called a "parallel to serial converter." This, through some tricky electronic technics, allows you to hook your parallel printer up to your serial port. This is normally a small box that is available in most Apple Pi member stores for $50-$100.

If you don't want to purchase this box, you can still have a non-Apple printer. Despite many salesman's claims, most name-brand printer manufactures make a serial version of thier printer that can be special ordered by your dealer.

John

Dear John,

I am a new member of Apple Pi, and I am still having problems with some of the "basics" of using my computer. Who can help me?

Green Apple

Dear Green Apple,

Coming soon to Apple Pi will be free classes for all of you "Green Apples" to learn the basics of computing with. Keep watching the Seed for details!

John

SNEEK PREVIEWS.....

NOVEMBER 1--the Auraria Book Store may come to demonstrate the following; Epson LQ-1500 printer, HP Think-jet printer, HP laser printer, HP computer scientist calculator. You do not have to be a student to buy anything at the Auraria Book Store. In addition, the president will have people demonstrating some popular games.

DECEMBER 6--Christmas party. No guest speakers will speak. Please note that there is no core meet in December.

JANUARY 3--Jonathan Kantor of Microsoft will demonstrate new Microsoft products for the Macintosh. He will also try to answer any questions you have on Microsoft products for the II series. January will be the one year mark for the Macintosh.

** VP **

CLASSIFIEDS

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AN/FGC-20 (Model 28) teletype machine. Includes maintenance manual. Great for a hobbist or communications buff. Asking $75.00

IF YOU ARE INTERESTED IN ANY OF THE ABOVE EQUIPMENT, CALL BOB AT 424-8357 OR LEAVE E-MAIL ON THE APPLE PI BBS TO USER #36.

80? §+$ »(*)ß

by Randall Ansley

If you write programs that use the Apple 80 column card then you have no doubt run into some of the cards less desirable traits. One of the first bugs was the zero page address for an HTAB. The documentation said to use the normal location POKE 36 ($24). This location does not always work if you tab past column 39. To solve this problem use POKE 1403 ($576) for your 80 column HTABs. The syntax is: 100 POKE 1403,X :REM X=COLUMN.

Another big problem with the 80 column card is what it does if you have it on and then turn on another slot. For example lets say you have a an Epson printer in Slot # 1. If the 80 column card is on and you do a PR#1 to turn on the printer then you will get all kinds of garbage on the screen. One way to stop this is to put a control I after the PR#1 to turn off (freeze) the screen. Use the syntax: 100 PRINT D$;"PR#1" : PRINT ; CHR$ (9)"N" : REM CHR$ (9) = CTRL-I When you want to come back to the screen if you do a PR#3 the 80 column card will turn back on but will also do a HOME and wipe out your screen. To stop this from happening you can fool the 80 column card into thinking that it was never turned off. Instead of using PR#3 to turn the card back on you can POKE the location of the 80 column card into CSWL (user Char. out vector) at locations 54 ($36) and 55 ($37) then CALL 1002 (a jump to an internal routine to re-hook DOS). You will now reenter the card as if you had never left it. You do have a couple of possible GOTCHAs. If you left the 80 column card with the cursor on the bottom of the screen you will need to move it up by at least one line before you go to another slot else the screen will scroll when you come back. You may also have changed your cursor location with activity in he other slot so you will need to tell the cursor where to go on the screen when you return.

The following is a little program that illustrates how to turn on the 80 column card, print text on the screen, turn on the printer and print a line, then return to the screen and print a last line without all the usual garbage and without loosing what you had on the screen.

```
10  LET D$ = CHR$ (4) : REM  SET DOS HOOK
20  PRINT D$;"PR#3" : REM  TURN ON 80 COL.
30  FOR I = 1 TO 10
40  PRINT "THIS IS A TEST"
50  NEXT I
60  PRINT D$;"PR#1": PRINT ; CHR$(9)"N":
     REM  TURN ON PRINTER AND FREEZE SCREEN
70  POKE 1403,1 : PRINT "THIS IS FOR THE
     PRINTER" : REM  TAB AND PRINT MESSAGE
80  POKE 54,7: POKE 55,195: CALL 1002: REM
     POINT TO 80 COL. CARD AND JUMP BACK IN
90  VTAB I: POKE 1403,1: PRINT "BACK TO THE
     SCREEN": REM  VTAB, HTAB AND PRINT
     MESSAGE
100  END
```

The VTAB I in line 90 is a sneaky way to get back to the line after the last "THIS IS A TEST". When you use a for next loop the variable you use will hold the value of the end of the range +1 thus after the FOR/NEXT on line 30 was finished the value for I was 11. I hope you find these little tricks useful.

□□□□□□□□□□□□□□□□□□□□□□□

Librarian:

Last month was a real winner for contributions to the library: we had very many contributions, and our October DOM reflected that by being 100% member contributions! That is something we would like to be able to say for every single one of our DOMs, so PLEASE contribute your programs to the library!

Unfortunately, this month has been really slow for contributions so far...I have received very very few programs for our November DOM, therefore our November DOM contains (for the most part) programs we have received through exchanges with other clubs. That's not all bad, because then you are able to see what kind of programs we get from abroad.

Our Christmas Disk is just around the corner! If you have any programs that you would like to contribute to our FAMOUS Christmas Disk, please call me right away at (303) 424-8357. We are anxious to get this disk together and out to our member stores!

-- Trent Hein, Librarian --

XLISP STUFF

by André van Meulebrouck

Since we got XLISP in our library, there have been people asking for XLISP at every core meet. This article is for those people. Any questions about this article or LISP should be directed to me, c/o the club. The club's address is on this publication.

When Woz and his friend were here, I asked his friend Randy (author of MacWrite and member of the Mac design team) about LISP on the Mac. There are quite a few available for the Apple II series, but none for the Mac yet. He said that a third party has written a LISP for the Mac, and it should be available in January. He has seen it, and says it is fast, and written in Assembly.

In my first article on LISP, I related some basics about LISP. Here are some key points to keep in mind;

--LISP is the language of artificial intelligence in this country.
--LISP is a very very HIGH level language.
--LOGO is a small subset of LISP.
--LISP is a symbol manipulator.
--LISP is recursive. Iteration is allowed, but alien and cumbersome in LISP.
--Recursion is a function calling itself from within itself.
--LISP has two types of data; atoms and dynamic lists.
--Atoms are like variables, lists have parentheses.
--LISP makes no distinction between data and programs!

The last point is absolutely crucial! Assembly language makes no distinction between data and program code, while C, Pascal, Basic, Fortran, etcetera do. This means in LISP you have access to the program space, and can modify it at runtime! You can write functions that write and modify other functions, then call them!

This brings me to a classical programming problem. Write a program to plot a mathematical function, the equation of which is to be given at runtime! Very few languages allow you to do this, because they make a big distinction between data and program source, and don't allow you to modify the program source at runtime.

In the last article I went over car, cdr, and cons. I don't wish to go over those functions. Let's move on to some more 'primitives' of LISP. Let's define a simple function using MacLISP (MIT's version of LISP). Try this using XLISP from our club library. Define is 'defun', probably standing for 'define a function', but you can think of it as standing for 'defining functions is fun' if you like.

```
(defun first (x)
  (car x)
)
```

If XI prnts a number on the screen while you are typing this in, it is trying to tell you how many parentheses you owe the interpreter. After the function is typed in XLISP responds:

```
first
```

This means first is now defined. It has one incoming paramenter or argument called x. Whatever first is called with will be bound with x until the 'first' function returns control to the caller, at which point the x of the 'first' function will be unbound (become undefined). Functions return values, so whatever car x is will be returned in this case. Pascal programmers are now probably wondering what type of parameter passage this is; call by value, or call by reference. It is neither. It is totally dynamic. There is no way to effectively talk about parameters in LISP without reference to the call chain context, because parameters can be bound with virtually anything with wild abandon, and the status of any given variable depends on which function is in control at any given point. After first returns control, the x in its definition is unbounded, and thereby undefined. If, in the environment the program was running in, there was another variable called x, then the x of the outer environment is back in force after 'first' returns a value, but while 'first' is being evaluated, x is whatever 'first' says it is. This is called dynamic binding as opposed to lexical binding. Lexical means that a name is somehow sacred within a source file, and name conflicts are not allowed, i.e. if x is global, then x is x regardless of where it is found. LISP is a very environment oriented language. The environment in force at any given time determines the status of alot of things, and the environment is always changing like the sands of the desert, thus the term 'dynamic', meaning 'changing'.

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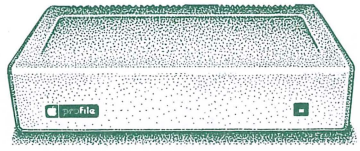

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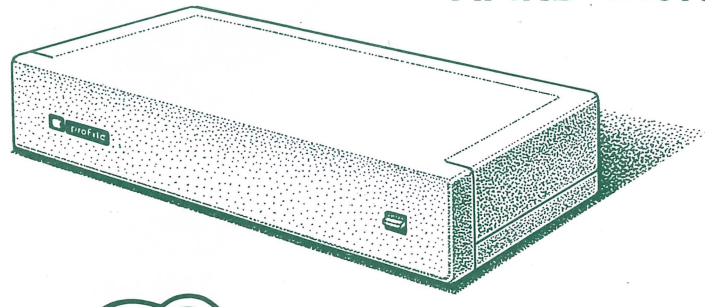

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A LESSON IN COMPUTERS

by Jeff Beehler

As of this month, I will start a series of articles that will focus on what I feel a beginning computer user needs to know in order to use his or her Apple (or compatible machine) effectively. The subjects I will discuss, will range from programming languages to computer software and hardware. If you have any subject that you think a beginning computer user needs, that I have not brought up, please contact me.

This month I will discuss some of the terms and 'jargon' used when talking about computers. These terms, because of the swiftly changing computer world, can change and often have slightly different meanings than what I describe, but hopefully some of them will be of help.

Computer - A computer is an electronic machine that is used to perform specific kinds of work. It can accept information, process the information, and produce results. A computer contains memory, a processing unit, a power source, and many times, expansion slots. I will discuss these later.

Byte - A computer works with only a binary system, including only the digits 0 and 1. In order for the computer to understand and display characters (letters and numbers), we must combine these 0's and 1's into a string, called a byte. For the computer to remember one character, such as the letter 'A', it takes one byte to do so. This article took 3654 bytes.

Random Access Memory (RAM) - an electronic circuit that allows the storing of information that is retained while the computer is on. This memory is usually measured in kilobytes (K), which equals approximately 1000 byte of memory. An Apple //e has 64 K of random access memory and a Apple //c has 128 K included. RAM disappears after you disconnect the power to your computer, which means that the computer stores nothing included within the RAM when it is off.

Read Only Memory (ROM) - an electronic memory circuit only allowing the user to read the information included within it. In an Apple, the language BASIC is included in ROM, which means the computer already 'knows' this information when you turn the computer on. The information does not disappear after you disconnect the power to your computer.

Input - the only way you have to tell your computer anything, is through the input device included with it. Most often the key input device would be the keyboard. Also if you have a disk drive, or cassette recorder, that also is an input device. A computer without an input device, is like a telephone without a dial.

Output - many times the output device on an Apple is the monitor or television screen hooked up to it. The output device is the only way the computer can 'talk' to you. Other output devices include printers, disk drives, and modems.

Hardware - includes all physical equipment included with computers. This includes printers, memory, monitors, disk drives and so on. All of what we have talked about (except the byte) is hardware.

Software - includes all instructions for the computer. These instructions come in different forms including, via diskette, via keyboard, or via cassette player. With out software, a computer would not be very useful to us. With software, the computer becomes a very powerful machine.

So as you can see all of these parts are crucial to the operation of a home computer. Each of these parts plays a specific and important role in the operation of a computer. Next month ewill get more specific towards the Apple computer family, and discuss computer language.

Jeff Beehler
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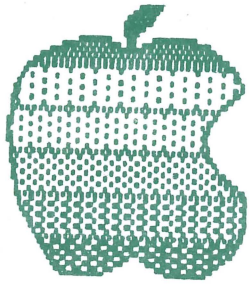

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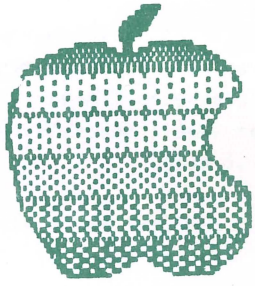

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